THE OUTLOOK

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FOR A BETTER TOMORROW

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NEW EDITORIAL POLICY

In examining the goals (and efforts to achieve them) of the cryonics movement a salient fact has appeared: While some people are satisfied merely to hope that they will continue to live, through cryonics, many others need the reassurance of being able to look forward to an improved life in a better world.

Therefore, it seems not only logical but inevitable that cryonicists work toward providing grounds for such reassurance. With this in mind, a new department is being included in THE OUTLOOK--"For a Better Tomorrow." The entire phrase, The Outlook for a Better Tomorrow is not accidental. It is for many people an important motivational factor.

FOR A BETTER TOMORROW

THE REAL POLLUTION PROBLEM
by
Robert Ettinger

Last April I was scheduled to lead off a "teach-in" at Highland Park College as part of the national Earth Day rites. At our school the program was cancelled because of the annual spring riots, but in the course of preparation I learned a few things.

The main lesson is that we must debunk the pollution scare, not only (1) because it is exaggerated, but even more important, (2) because its philosophical basis is pernicious and inimical to our broadest interests.

A critical reading of one book in particular reveals much about both technical and philosophical weaknesses of the ecology scare mongers: THE ENVIRONMENTAL HANDBOOK (Prepared for the First National Environmental Teach-in, April 22, 1970), edited by Garrett DeBell. Ballantine Books (1970).

Plants and Oxygen

To begin with, one minor but interesting point, we note that many doom-criers have said that paving the world will hasten strangulation by eliminating the forests that renew the oxygen. Even many scientists seem to believe that our atmosphere's oxygen was built up by green plants. Actually, unless it is fossilized or otherwise stored, a plant adds no oxygen to the air; on decaying it uses up exactly as much oxygen as it generated during growth. (The oxygen actually accumulated by dissociation of water vapor in the upper atmosphere, the hydrogen leaking off into space.)

Of course, plants have other--and real--uses, nor do I advocate the unrestrained growth of highways and parking lots; the above is only a small example of the scream-first-think-later syndrome of the wilder ecology buffs. A worse example is the "scenario" written by Professor Paul Erlich of Stanford.

Exaggerated Pollution Effects

Prof. Erlich suggests that before 1980 we may have met the following disasters: (1) the death of all fish in the ocean, due to the

dumping of DDT and similar materials; (2) the collapse of agriculture in the underdeveloped countries, because of their foolish reliance on U.S. and U.S.S.R. technology; (3) the near-extinction of bird life, again related to use of pesticides; (4) smog suddenly killing 200,000 Americans; (5) a permanent drought producing a desert in the midwest, because of a shift in the air currents related to air pollution; (6) the reduction of the American life-expectancy to 49 years or less because of smog.

Even if we disregard Prof. Ehrlich's political views--he tends to blame things on a military-industrial conspiracy--we cannot overlook the lack of hard information, the grotesque exaggeration of mere possibilities. While space does not allow detailed documentation, I am convinced that almost all, if not all, of the dismal trends decried by the eco-faddists are either very much slower than alleged, or reversible, or both.

For example, the kind of pollution most prominent in Lake Erie is that of phosphates and sewage causing overgrowth of algae, in turn lowering the oxygen level in the water, which kills fish. Most aspects of this degradation can be stopped--at some expense--by changing methods of waste disposal, and can even be reversed fairly rapidly by using aeration devices--if we are willing to pay for them.

Pollution of the Young

There are serious ecological problems, but there is no ecological crisis. When we are ready to pay enough attention, and enough money, we will solve these problems. Delay in pollution control will be harmful, but not fatal. What may be fatal is the pollution of the minds of the young with another fad, a new fanaticism.

Let me quote a few fragments from THE ENVIRONMENTAL HANDBOOK. "Americans might be happier with fewer automobiles." "[We] had better learn how to live the Simpler Life." "The 'massive American housing shortage' is a myth." "Less emphasis on acquisition and material wealth as any measure of anything good." "Let man heal the hurt places, and revere whatever is still miraculously pristine." "Instead of being anthropocentric [man-centered] you have to care equally about all earth creatures.

The emphasis was mine in the last quotation, although its absurdity should scarcely need emphasis. Fishes and flowers are fine, but whoever equates their welfare with that of people is a little confused. Equally inane is the notion that salvation is to be found in a back-to-nature philosophy, which would simply by-pass most of our present problems and altogether close out most of our future options.

Unnatural Nature

The Nature-Boy notion, in its recent manifestations, is linked with a mystical reverence for the "natural", buttressed by pseudo-scientific references to ecology and the balance of nature that we disturb at our peril. The mystics overlook two essential points; (1) "Nature" is constantly changing, with old equilibria being upset and new ones appearing to hold transient sway. (A while back, the central states area was covered by an inland sea. More recently, Michigan was covered by a glacier.) (2) We do not aim for any static utopia, and if we did it would be tailored to our desires and needs,

not those of snakes and mosquitoes; it would be the wildest coincidence if any existing "natural" environment turned out to be "ideal".

Production Necessary

Fewer automobiles? That isn't necessarily a bad idea, provided the energy and resources released are productively redirected. Austerity and asceticism in consumption? That might be all right, too--if your tastes run that way--provided the reduced consumption is not matched by reduced production.

The fact is we are still very poor as a nation; there is indeed a massive shortage of housing and almost everything else. Unfortunately, most of those who advocate consuming less also want to work less, and less efficiently.

If someone chooses to live in the "natural" forest--or in the equally natural malaria swamp or alkali desert--it's a free country. But let him not pretend or suggest that this will feed the underprivileged, or educate them; and <u>especially</u> let him not imagine that anything other than an intensive industrial-technological civilization can provide modern medical care.

In simple terms, it boils down to this: unless you are rich to begin with, your bucolic idyll will come to an abrupt end with the first serious illness in the family--unless you succeed in throwing yourself on the mercy of the welfare institutions of the city folk.

As for the long term prospects, the outlook is even clearer: the immensely improved and complex medical technology needed to provide extended life requires great wealth, hence can arise <u>only</u> from an industrial base and a havit of work and competition.

Until we have immortality, the "Flower Child" mentality is at best a temporary whimsy, and at worst a fatal aberration.

No more than anyone else is the cryonicist in favor of more smog or planetary paving; no less than anyone else do we enjoy quiet and open places. But one of our mottoes is <u>first things first</u>. We do not delude ourselves. Immortality costs money; to make it as individuals, we must earn substantial amounts; to make it as a society, we must up the GNP, and rapidly. The notion that we can enjoy the fruits of labor without laboring is a pollution of the mind, and it is <u>this</u> pollution which is the freater threat.

<u>CONTROVERSIAL ISSUE POPS UP</u>

During the panel discussion of mercy freezing in May an issue was raised that it seems must be considered by cryonicists: is mercy freezing an advantageous substitute for capital punishment--or--to go a step further--life imprisonment such as that recently meted out to Olie Ann Fulghan, killer of Detroit policeman, Paul E. Begin? (She also critically wounded Begin's partner, Patrolman William M. Skibo.)

In this case a special recommendation accompanied the sentence; parole is never to be considered.

Pros and Cons

In a most informal and limited probing of opinions held on this matter it was found that pros and cons seem to be equally prevalent and strongly held.

The primary con is that such a concept is detrimental to the cryonics movement by relating it to the principle of punishment--or abnormal people and situations.

The corresponding pro is that rather than hurt cryonics, mercy freezing in place of punishment closely follows modern social trends toward more humane attitudes in which social deviates are regarded as subjects for repair instead of punishment.

If facilities and techniques for effective repair do not exist at this time, what better method for an enlightened society than to separate its criminal deviates and keep them isolated from further opportunity to do harm, by freezing and storing them until they can be successfully resuscitated, repaired and returned to normal existence?

Another significant con is the one dealing with financial arrangements. Who will take on the financial obligations of such an undertaking? It seems obvious that the state would have to do so. Would tax payers be willing to subscribe to this?

Responses to this question are many, varied and complex. In fact the whole issue becomes involved to a point beyond the scope of THE OUTLOOK to present at this time.

However, mercy freezing as a substitute for the ultimate inhumanity of both capital punishment and unequivocal life imprisonment appears to be an issue of potential significance. It is something for cryonicists to mull over and come to some kind of conclusion about--both in private thought and organizational policy. Should it be summarily dismissed or further investigated?

PROGRESS APLENTY

It's absolutely amazing how fast science is progressing these days. Man's ability to shift and change his environment, and even himself, in conquest of age old diseases is becoming more pronounced and more deliberate. His questions--the true gauge of his wisdom--are becoming more and more prolific. Science, still in its infancy, is beginning to win some of the long, seemingly interminable struggles it has waged against the natural elements.

Advances Recently Accomplished

Last month Dr. Har Gobind Khorana, of the University of Wisconsin, announced that, for the first time in history, a gene has been synthesized. Genes are the fundamental units of heredity in all cells--in this case the gene was related to the metabolism in a common yeast cell.

The importance of this achievement, the creation of basic cellular material from distinct chemicals, is great. It was hailed as making it possible to "open the door to the manufacture of other genes and gives scientists a new route to follow in their attempts to understand the chemical processes of life."

Dr. Gordon Zeve, of the National Cancer Institute, has claimed to see and photograph a virus that is responsible for breast cancer in women. This recent discovery, if proven to be correct, could be a first step in finding a cure for the disease, which takes the lives of some 30,000 American women each year.

Scientists have yet to find evidence

that other cancers may be caused by viruses. This discovery should lead to more understanding of the correlation between cancer and viruses.

Dr. Ade T. Milhorat of New York recently announced that chemicals derived from vegetable oils have reversed the muscle-disintegrating process in chickens--the first such reversal in any living creature.

Dr. Milhorat stated, "We believe that these observations will lead to a more complete understanding of the cause and nature of muscular dystrophy." He also said that trials of the chemicals with humans might begin within the next few months.

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A new drug, L Dopa, for the treatment of Parkinson's Disease was cleared in June by the federal government for sale to the public by prescription.

One of the major drug discoveries of recent years, L Dopa is considered to be the first effective measure against this disease, which is a disorder of the central nervous system affecting predominantly older persons with tremors and sometimes total rigidity.

Skepticism vs. Resolve

Yet, amid all of this fascinating, fantastic array of endeavor and progress, some of us are still not convinced of its worth.

Recently, in one of the Detroit papers a journalist wrote that it would be nice if we could take all of our scientists and put them in a deep freeze until we needed them again--if that time ever came. He purported that scientists have caused enough trouble with their tinkering and discovery. According to this man, instead of admitting our ignorance in not being able to deal effectively with the problems of today, we are to deny the giant that has lifted us out of the mire of bare existence to see the high potential of life and thereby go back to the pure natural state of disease and hunger.

Fullness, richness, immortality are just around the corner. To turn back, to slow down, to quit the race now would be folly of the highest order.

Patrick Dewey

CELLULAR THERAPY REVIEWED

For many years there have been sensational stories about the use of "cellular therapy" for various diseases, and even as a partial cure for old age. The Swiss physician, Dr. Paul Niehans, in particular has received much notoriety for "rejuvenating" celebrities, allegedly at whopping fees, by injecting them with the cells of young or embryonic animals, e.g. lambs or calves. His patients are said to have included W. Somerset Maugham and Pope Pius XII.

Unfortunately, all the treated people named in the rumors have either continued to age or have died, but there is a stubborn residue of assertions that the treatments were useful. Now, in the April, 1970 issue of the JOURNAL OF GERONTOLOGY, we have an article by Eugene G. Jussek, M.D. (Sherman Oaks Community Hospital, California) and Arno A. Roscher, M.D. (Granada Hills Community Hospital, California), which carefully--if briefly--surveys the scientific literature on cellular therapy and concludes that there have indeed been remarkable results and that the

technique holds promise.

Techniques

Although injection of any foreign protein into a living animal usually produces illness (even cells of the same species, but a different individual, are recognized as "foreign" to the body, which attempts to attack and reject them), the use of very young or embryonic cells, and other stratagems, tend to minimize these problems.

In one type of process, the injected cells actually appear to funtion in their intended way. For example, experiemnts were performed with guinea pigs whose blood-forming bone marrow cells were injected intravenously--either homologous (same species) or heterologous (different species). The cells found their way to the proper sites, multiplied, and proceeded to produce new blood-forming elements of the donor type. If the type was close enough, the animal lived; this is, apparently, the most effective known treatment for radiation anemia.

In most types of experiments, however, the injection is intramuscular, not intravenous, and the mechanism of benefit is not clear; but there do appear to be proven benefits. Arteriosclerotic cardivascular disease--hardening of the arteries--is a typical and major cause of aging-related illness and death, and significant improvement has been reported following placental cell injections, with 53% of a series of 471 patients showing long-lasting improvement. Another worker reported that patients suffering from atrophic cerebral processes--another typically senile debility--regained their vitality after cell

Cellular therapy does not seem to be practiced in the U.S., and some of the European practitioners are of dubious standing. But as a field for research such techniques seem to hold definite promise.

CRYONICS ON VIRGINIA GRAHAM SHOW

On June 18, in Hollywood, a cryonics discussion was taped as the main feature of THE VIRGINIA GRAHAM SHOW, a new talk show featuring the well-known comedienne, who previously was the star of a show called GIRL TALK.

Bob Ettinger went to Los Angeles for the program, and joining in the discussion, from the audience, were CSC members Robert Nelson (President) and Fred Chamberlin; also in the audience were Paul Porcasi, Dawn Christensen, and Marshall Neel, as well as Bill Cannon, who is working on the film version of WE FROZE THE FIRST MAN.

The discussion was generally friendly and stimulating, although somewhat incoherent. Singer-comedienne Kaye Ballard was enthusiastically for cryonics. Former talk-show host Alan Burke was hostile but ineffective, although he wasted time by trying to drag in reincarnation. All in all, the show was frustrating but probably somewhat helpful.

Air dates and times will vary, the show being syndicated, with different arrangements for different outlets. In the Detroit area it may be seen on Channel 9 some time during the summer, although the information was vague.

DR. E.W. WALTON JOINS SAC

E. Wesley Walton, Ph.D., has joined the Scientific Advisory Council of the Cryonics Societies

of America. Dr. Walton is not a scientist in the narrower sense, but a classicist, whose interests and talents, nevertheless, qualify him to contribute to some of the intended functions of the SAC.

Eventually, it is anticipated that two parallel Councils will be set up, the second being the Humanities Advisory Council.

Dr. Walton is a member of the Cryonics Society of Michigan, with his wife Judith, a biologist who has done research in cryobiology. Judith is trilingual, not counting English, and last year ranked 98th percentile in the Graduate Record advanced examination in biology. Dr. Walton is a published poet and essayist. The Waltons' most recent work has been at Johns Hopkins University.

BOOK REVIEW: "FREEZING POINT"

Freezing Point: Cold as a Matter of Life and Death, by Lucy Kavaler, The John Day Co., N.Y., 1970.

A prepublication copy of this book (official publication date, September) was sent to me for comment, since the material surveyed includes cryonics.

In its pages, the layman is taken for a pleasant ramble through the world of cold life, both natural and artificial--arctic lore, natural adaptations to cold, medical and commercial use of cold. The many errors which have crept in, despite tha author's obvious efforts, are probably not too serious; it is not intended as a textbook, although it is indexed and has an extensive bibliography.

The book is full of tiny nuggets of information, suitable to pass on at cocktail parties, e.g.: "The liver is one to two degrees warmer than the kidneys." "About 50,000 (frozen mammoths) have been discovered in Siberia...The penis of one mammoth was having an erection." "The bear...does not defecate during (hibernation) ...Evacuation is made physically impossible by a fecal plug, mostly of vegetable matter, stopping up the rectum." "Exobiologists have placed molds and bacteria in pure ammonia and these have grown."

All this is interesting enough, and some of it even useful. The section on cryonics, however, was rather disappointing, being typical Sunday-supplement journalism. Information is badly outdated and contains many errors--minor errors of commission and more serious errors of omission.

The only interesting thing the author says about cryonics concerns the quality of its leadership: she thinks we need a Pied Piper, a charismatic leader to whip up enthusiasm. Maybe so, but we can't wait.

Robert Ettinger

1971 CONFERENCE DATE SET

Dr. M. Coleman Harris, Chairman of the Bay Area Cryonics Society, has announced that the date of the FOURTH ANNUAL CRYONICS CONFERENCE AND SCIENTIFIC CONGRESS will be June 18-19, 1971. BACS will be the host society.

HOPE KNOLL TRUSTEES MEETING

Joseph Cannon reports that the first annual meeting of the Hope Knoll Cryogenic Cemetery Board of Trustees was held June 25--the first such meeting of the first such cemetery, which is located near Appleton, Wisconsin.

With routine business deferred, the evening was used to orient special guests, including the Executive Secretary and Counsel of the Wisconsin Funeral Directors Association, a local funeral director who is an officer of the Association, two members of the Town Board of Ellington (in whose jurisdiction Hope Knoll falls), a representative of the State Board of Health, and a member of the Wisconsin legislature who is sponsoring new legislation on cryogenic interment. The State Medical Society did not respond to its invitation.

Mr. Cannon gave a presentation of cryogenic interment and a question and answer period followed. The guests seemed to profit by the meeting. The funeral directors' counsel agreed to help draft the new legislation, which, it is hoped, will place cryonics on the firmest possible foundation in Wisconsin.

NEW SUCCESS FREEZING DOG KIDNEYS

Saul Kent of CSNY and Conley Hall of CSM have reported articles respectively in the New York Times June 27 and Science News July 4, on dog kidneys frozen at the University of Pennsylvania by a team under Dr. Herndon Lehr. Mr. Kent confirmed the information with Dr. Lehr by telephone.

Information is incomplete, but it appears one of the kidneys has been producing urine for seven weeks after reimplantation; the next step is to remove the other kidney to prove the reimplanted, frozen-and-thawed kidney alone will sustain life. This has been done before--e.g. by Nicholas Halasz and colleagues, reported in Surgery of March, 1967--but not often. The kidney is a complex organ with several functions and types of cells, and not thin enough to allow perfusion by simple soaking.

Thawing was by microwave oven, as in "electronic cooking"; this is a difficult technique, with danger of local overheating. Freezing temperature was said to be below -130°C, and would have allowed indefinite storage, according to the Times, quoting Dr. Lehr.

DETROIT TV COMING UP

Bob Ettinger has been asked to appear on Tempo 9, a Channel 9 interview show 12:30 weekday afternoons. Taping is scheduled Tuesday, July 21, and airing apparently Wednesday, July 22.

EUROPEAN CRYONICS

Anatole Dolinoff reports that the meeting in Geneva to activate the European Cryonics Corporation will probably take place October 26. We have many other details, which we hope to report soon.

MRS. LORRIE HULL IN "WHO'S WHO"

Lorrie (Mrs. John) Hull, a CSM member living in Fond du Lac, Wisconsin, has been chosen for inclusion in the 1970 edition of Who's Who of American Women. She is the eighth-year director of plays for the Fond du Lac Community Theatre, and has also been named "Theatre Woman of the Year" by the Wisconsin Community Theatre Association, of which she is president.

MARCELON JOHNSON IN FEATURE

The Southland Sunday, a magazine of several Southern California newspapers, on July 5 ran a feature article on cryonics, centered on an interview with Mrs. Johnson, treasurer of CSC.